SFPUC CHLORAMINE CONVERSION

Question & Answer Sheet

1. What is chloramine?

Chloramine is a disinfectant used in drinking water to remove bacteria and viruses. It consists of chlorine and ammonia.

2. Why is the City of Milpitas converting from chlorine to chloramine?

For many reasons. (1) Chloramine is a better choice as a final disinfectant than chlorine alone because chloramine produces lower levels of disinfectant by-products like trihalomethanes, suspected carcinogens that form when chlorine mixes with natural organic substances in water. (2) The conversion will enable our agency to comply with more stringent regulatory standards (present and anticipated). (3) Chloramine is more stable than chlorine and lasts longer in the distribution system. This provides increased protection from bacterial and viral contamination.

3. When will the conversion occur?

Fall 2003. The San Francisco Public Utilities Commission (SFPUC) and agencies like ours that receive water from the SFPUC will switch their drinking water disinfection system from chlorine to chloramine in Fall 2003.

4. Which customers will be affected by the conversion?

San Francisco residential and commercial customers and water agencies and utilities in San Mateo, Santa Clara, and Alameda counties that receive water from the SFPUC will be affected by the conversion.

5. How many utilities currently use chloraminated water?

Most Bay Area utilities and many communities nationwide have already switched to chloramine for drinking water disinfection. Local water providers include: Alameda County Water District, East Bay Municipal Utility District, Marin Municipal Water District, and Santa Clara Valley Water District. Some water providers throughout the United States have been using it for over 80 years.

6. Will the water taste different after the conversion to chloramine?

Possibly. Most consumers should not notice the change. In fact, many consumers from other utilities report chloramine improves the taste and odor of drinking water.

7. Is chloraminated water safe?

Chloraminated water is safe for people and animals to: drink, cook with, bathe in, water the garden, and for all other general uses. However, as with chlorine, precautions must be taken to remove or neutralize chloramine during the kidney dialysis process, in the preparation of water for fish tanks and ponds, and for businesses requiring highly processed water.

8. Is it safe to wash open wounds with chloraminated water?

Yes. Chloraminated water is completely safe to use on cuts and wounds.

9. How will chloramine affect household plumbing, pipes, and water heaters?

After the conversion, rubber parts on some household plumbing and water heaters may degrade faster than previously experienced. When replacing rubber plumbing parts, ask for chloramine-resistant parts, which are readily available. Plumbing and hardware supply stores and plumbers will be able to provide further information.

10. Do I need to take any precautions or do anything different when using chloraminated water?

Only three special groups need to take precautions with chloraminated water: fish, reptile and amphibian owners, dialysis facilities, and businesses using or requiring highly treated water.

11. What types of businesses will be affected?

Businesses using highly processed water may be affected. Types of businesses may include: laboratories, microchip manufacturers, biotech companies, soft drink bottlers, photography labs, or restaurants or seafood suppliers with fish tanks. Businesses should contact a water treatment professional or an equipment supplier to review their treatment process.

12. Why is chloramine harmful for fish and amphibians?

Fish and some amphibians and reptiles pass water through their gills directly into the bloodstream. Like chlorine, chloraminated water can do harm if passed directly into the bloodstream. Chloramine can be removed from water with inexpensive water treatment products (drops or tablets) or specified carbon filters. These products are readily available at most pet supply stores.

13. Why is chloramine harmful for dialysis patients?

Like chlorine, chloramine can harm kidney dialysis patients during the dialysis process if it is not removed from water before it passes into the bloodstream. The California Department of Health Services will inspect and certify that dialysis facilities in the SFPUC service area are prepared prior to the conversion. Like everyone else, dialysis patients can drink chloraminated water because the digestive process neutralizes chloramine.

14. How can I remove chloramine from my water?

Chloramine cannot be removed by boiling water, adding salt, or letting water stand still. Treatment devices to reduce chloramine levels are available. These devices should be independently tested and specifically certified to reduce chloramine. Although home filtration systems will reduce the level of chloramine from water, it will not remove it completely.

15. How can sensitive users remove chloramine from water?

The California Department of Health Services (DHS) will oversee the upgrades of dialysis facilities and equipment. Generally, dialysis providers can use ascorbic acid or a granular-activated carbon filtration system designed to remove chloramine as provided. Fish and amphibian owners can use water treatment products or specified carbon filters before adding water to their tank or pond. Businesses will need to upgrade their current filtration and treatment system. Businesses may wish to contact their equipment supplier or a water treatment professional to review current operations.

16. Will pool owners need to treat chloraminated water differently?

As with chlorinated water, pool owners will need to maintain the same chlorine residual as before to prevent algae and bacterial growth. Pool supply stores can provide pool owners with more information.

17. Is chloraminated water safe for plants and animals that do not live in water, like my pet dog or cat?

Chloraminated water is as safe as chlorinated water for plants and animals that do not live in water. Chloramine is only dangerous for fish, reptiles, shellfish, and amphibians that take water directly into their bloodstream.

18. How will the chloramine conversion project be funded?

The chloramine project is funded through a combination of 1198 Measure B bond funds and revenue funds.

19. If chlorine and ammonia are toxic to mix at home, why is it safe to drink chlorine and ammonia in the form of chloramine?

Household chemical cleaners such as chlorine bleach and ammonia are sold as highly concentrated solutions; the hazardous mixture of these chemicals is due to their high concentrations. In comparison, the concentrations of chlorine and ammonia added to drinking water for disinfection are very low, so low that concentrations are expressed in "parts per million" or ppm. After the conversion to chloramine, average chlorine concentrations in water will be about 2 ppm; ammonia concentrations will be even lower at 0.5 ppm. As an analogy, one ppm represents about 5 tablespoons in a 20,000-gallon swimming pool.

20. Where can I get more information?

The City of Milpitas has several fact sheets with specific information for dialysis patients, businesses and fish and amphibian owners. We can send you fact sheets and an informational brochure. You may also access our website: www.ci.Milpitas.ca.gov or call (408) 586-3348 if you have questions.